SOUTHERN DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK	ζ
QUANTUM BIOPHARMA LTD., Plaintiff,	
v. CIBC WORLD MARKETS, INC.; RBC DOMINION SECURITIES INC., and JOHN DOES 1 THROUGH 10, Defendants.	Case No.: 1:24-CV-07972 (ER) Hon. Edgardo Ramos ORAL ARGUMENT REQUESTED
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DEFENDANTS' REPLY MEMORANDUM IN FURTHER SUPPORT OF THEIR JOINT MOTION TO DISMISS THE AMENDED COMPLAINT

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PRELIMINARY STATEMENT

Quantum's opposition ("Opp.")¹ tries to obscure the deficiencies in its own pleadings by relying on distinguishable spoofing cases that were far more particularly pled.² In opting to amend, Quantum tried to copy the *form* of those cases, but failed to plead anything close to the same substance. Indeed, the complaints in those cases illustrate exactly what is missing from the AC: the specificity the PSLRA requires to survive a motion to dismiss. For that and other independent reasons, the AC should be dismissed with prejudice.

First, because Quantum's claims are overwhelmingly foreign, they do not belong in a U.S. court. Quantum's reliance on Harrington is unavailing because that case addressed specific U.S. contacts that are not alleged here. And Quantum all but concedes that its half-baked "probabilistic imputation" methodology lacks anything close to the precision—measured in nanoseconds—that the court in Mullen deemed sufficient to draw a reasonable inference in plaintiffs' favor in that case. The AC should be dismissed because this Court lacks personal jurisdiction, the claims are impermissibly extraterritorial, and Canada is the more convenient forum.

Second, the AC fails to plead any of the elements of an Exchange Act claim. Quantum cannot plead manipulative acts by attaching labels to aggregated order data, and the spoofing "examples" reflected in the AC fall well short of the detailed examples pled in other spoofing cases cited in the Opposition. Quantum provides no plausible explanation for why

¹ Unless otherwise indicated, capitalized terms have the same meaning ascribed to them in Defendants' opening brief ("Br."), and all internal citations, quotations and alterations are omitted.

² E.g., Harrington Glob. Opportunity Fund, Ltd. v. CIBC World Mkts. Corp., 585 F. Supp. 3d 405 (S.D.N.Y. 2022) ("Harrington I"); Harrington Glob. Opportunity Fund, Ltd. v. CIBC World Mkts. Corp., 2023 WL 6316252 (S.D.N.Y. Sept. 28, 2023) ("Harrington II"); Mullen Auto., Inc. v. IMC Fin. Mkts., 2025 WL 951501 (S.D.N.Y. Mar. 28, 2025); Phunware, Inc. v. UBS Sec. LLC, 2024 WL 4891891 (S.D.N.Y. Nov. 26, 2024) ("Phunware II").

Defendants would engage in a multi-year spoofing scheme for little or no profit, and it thus fails to plead a strong inference of scienter. And unlike in *Phunware*, Quantum's failure to allege that it sold shares sufficiently close in time to any of the spoofing "examples" in the AC means that Quantum cannot plead loss causation under *Gamma Traders - ILLC v. Merrill Lynch Commodities*, *Inc.*, 41 F.4th 71, 80-81 (2d Cir. 2022). Quantum's argument that spoofing, which by definition involves small price movements over a fraction of a second, can somehow *permanently* decrease a stock's price was rejected in the very cases Quantum cites, and ignores the far more plausible explanation for Quantum's decline: its own mismanagement and dilutive issuances.

Third, Quantum's claims are time-barred because, by Quantum's own admissions in public filings, it knew of the facts constituting the alleged spoofing violation since early 2022.

Last, Quantum's common law fraud claims fail both for the same reasons its Exchange Act claims fail and for the additional reason that the AC does not allege that Defendants made any misstatements or omissions, as required under New York law.

ARGUMENT

I. Quantum's claims should be dismissed because the litigation is predominantly foreign.

This case involves claims by a Canadian Plaintiff against Canadian Defendants regarding trading of a Canadian stock on a Canadian exchange. Nothing in the Opposition explains why, in light of those facts, this case is not uniquely foreign. The Court should dismiss the AC on personal jurisdiction, extraterritoriality, and *forum non conveniens* grounds.

A. Quantum fails to plead personal jurisdiction over any Defendant.

1. Quantum fails to plead "causal effects."

Quantum argues that, because the Court exercised personal jurisdiction over the Canadian defendants in *Harrington*, it must exercise jurisdiction over Defendants here. (Opp. 7-10.) But *Harrington* is distinguishable. In *Harrington I*, the plaintiff alleged that certain Canadian

banks "conspired" with U.S. affiliates to "simultaneous[ly]" place spoof orders on both U.S. and Canadian exchanges, and those affiliates were named as defendants. 585 F. Supp. 3d at 411, 415. And in *Harrington II*, the Court exercised jurisdiction because the plaintiff alleged "substantial activity by the Canadian Defendants on both sides of the U.S.-Canada border, with the alleged baiting orders placed 'on either Canadian or U.S. Exchanges' *and* the alleged executing orders placed on U.S. exchanges directly or through intermediary U.S. broker-dealers," who were specifically identified as having facilitated the Canadian defendants' purported "cross border" spoofing schemes. 2023 WL 6316252, at *4 (emphasis added).

None of those U.S. contacts are alleged here. And, without them, Quantum cannot plausibly plead that Defendants' purported trading of Canadian stock on Canadian exchanges was in any way "expressly aimed" at this forum. 7 W. 57th St. Realty Co. v. Citigroup, Inc., 2015 WL 1514539, at *10-11 (S.D.N.Y. Mar. 31, 2015), aff'd, 771 F. App'x 498 (2d Cir. 2019). Moreover, Quantum relies on Harrington II for the proposition that the causal effects test is satisfied when it is "allege[d] that the purpose and intent of the cross-border spoofing scheme was to manipulate the price" of shares in the U.S. (Opp. 9.) But unlike in Harrington, Quantum fails to allege any facts to plausibly plead any "cross-border" scheme. Plaintiff "must make allegations establishing jurisdiction with some 'factual specificity' and cannot establish jurisdiction through conclusory assertions alone." Berdeaux v. OneCoin Ltd., 561 F. Supp. 3d 379, 395 (S.D.N.Y. 2021).

2. Quantum fails to plead direct contacts through "probabilistic imputation."

Quantum argues that the AC pleads "direct contacts" because CIBC and RBC supposedly placed "specific manipulative trades . . . in the United States." (Opp. 10.) That is wrong. Quantum does not even allege that CIBC and RBC—both Canadian banks—are Nasdaq Member Firms capable of trading on U.S. exchanges. (¶¶ 14-15, 18.) As Defendants showed in their opening brief, judicially-noticeable documents confirm they are not. (Br. 6, 11.)

Moreover, Quantum's sole basis for alleging that Defendants traded in the U.S. is its so-called "probabilistic imputation" methodology, which makes no sense and is not, as Quantum insists, supported by *Mullen*. Quantum asks the Court to assume that all U.S. orders/trades placed within a *ten-millisecond* window of one of Defendants' Canadian orders/trades must have also been placed by Defendants. But ten milliseconds is an eternity in the trading context. Nothing in *Mullen* suggests otherwise. In fact, Quantum's ten-millisecond window is between *ten and one million times longer* than the imputation periods used in *Mullen*. That difference is determinative: Ten milliseconds, particularly in the high-frequency market at issue here, is more than enough time for *other* market participants to react to orders—including Defendants' orders—placed in the market. (Br. 6, 11.) Accordingly, the assumptions underlying the *Mullen* court's decision to accept an imputation theory (*i.e.*, that orders placed extremely close together must have originated from the same market participant) do not hold in this case.

Contrary to Quantum's assertions, this is not mere "say-so." (Opp. 11.) The AC itself is replete with allegations concerning the speed of high-frequency trading in this market. (See, e.g., ¶85 ("nearly 75% of all trades are conducted algorithmically"); ¶¶55-56 (alleging market's reaction to baiting orders often occurred within "milliseconds").) Quantum attempts to explain away this discrepancy by asserting that "[d]ata limitations" prevented it from using a shorter imputation period. (Opp. 12 n.4.) But that excuse is belied by Quantum's use of timestamps showing microseconds (i.e., 6 digits after the decimal) for alleged U.S. activity throughout the AC. (See, e.g., ¶¶115-16, 120-21, 175-76, 185-86, 195-96.) Quantum therefore has no excuse for failing to use a sufficiently precise imputation period, consistent with Mullen. Accordingly, Quantum cannot rely on probabilistic imputation to plead that any Defendant engaged in conduct directed at this forum.

B. Quantum's claims are impermissibly extraterritorial under *Morrison*.

Quantum argues that its claims "are not impermissibly extraterritorial" under *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247 (2010), because *Harrington II* upheld allegations that the "Canadian Defendants engaged in trading on U.S. exchanges in relation to the spoofing scheme, with the intent to manipulate the price of Concordia stock on U.S. exchanges." (Opp. 13.) But *Harrington* involved far more U.S.-specific allegations, including allegations of domestic transactions on U.S. exchanges, which are not pled here. *See supra* Part I.A. Because Quantum cannot allege a single domestic transaction by either Defendant, the claim is impermissibly extraterritorial under *Morrison*.

Even if a domestic transaction were properly pled, Quantum's claims remain predominantly foreign. Parkcentral Glob. Hub Ltd. v. Porsche Auto. Holdings SE, 763 F.3d 198. 215-16 (2d Cir. 2014). Quantum's arguments in response are unavailing. For starters, that other circuits chose not to follow *Parkcentral* (Opp. 13 n.6) does nothing to alter its binding effect on this Court. Further, as demonstrated above, allegations that Defendants traded on U.S. exchanges (based on "probabilistic imputation") are not plausible and should not be credited. Supra Part I.A. Quantum places great weight on In re iAnthus Capital Holdings, Inc. Securities Litigation, 2022 WL 4539119 (S.D.N.Y. Sept. 28, 2022), but that case is inapposite. (Opp. 14.) The iAnthus court agreed that the plaintiff's claims were "based entirely on U.S.-focused activities," which involved one California-based defendant, and a Canadian defendant that "own[ed] and operate[d] facilities in the United States," was "U.S.-based" and "perpetrated" a "significant portion of the domestic conduct... domestically." 2022 WL 4539119, at *9. The facts here are markedly different—all parties are Canadian, the stock is Canadian, the overwhelming majority of trades took place on Canadian exchanges, and there is no allegation that Defendants placed any trades directly on U.S. exchanges.

C. Quantum's claims should be dismissed under forum non conveniens.

Quantum's claims also should be dismissed on *forum non conveniens* grounds.³ Quantum's contrary arguments are unpersuasive.

First, Quantum ignores that the degree of deference due to a plaintiff's choice of forum depends on whether the plaintiff chose the forum for "reasons the law recognizes as valid." Iragorri v. United Techs. Corp., 274 F.3d 65, 71-72 (2d Cir. 2001). Where, as here, a plaintiff is foreign, "plaintiff's choice deserves less deference" because it is much less reasonable to presume that the choice was made for convenience as opposed to "forum-shopping reasons." Id.

Quantum's cited cases are distinguishable. (Opp. 15.) Deference was warranted in those cases because they involved plaintiffs that either resided in or had a principal place of business in New York. *See DiRienzo v. Philip Servs. Corp.*, 294 F.3d 21, 28 (2d Cir. 2002); *Glob. Art Exhibitions, Inc. v. Kuhn & Bulow Italia Versicherungsmakler GmbH*, 607 F. Supp. 3d 421, 436 (S.D.N.Y. 2022). And, in *Villella v. Chemical & Mining Co. of Chile*, the court deferred to the plaintiffs' choice of forum where most of the plaintiffs in the class were U.S. investors and the alternative forum was farther and less convenient for litigants. 2017 WL 1169629, at *6 (S.D.N.Y. Mar. 28, 2017). Here, in contrast, deference is not warranted given that Quantum and Defendants are all Canadian.

Nor can Quantum establish a "bona fide" connection to the United States because Quantum stock traded "on Nasdaq." (Opp. 15.) Courts in this District have rejected analogous claims. *See Fustok v. Banque Populaire Suisse*, 546 F. Supp. 506, 514 (S.D.N.Y. 1982); *De Young v. Beddome*, 707 F. Supp. 132, 139 (S.D.N.Y. 1989).

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³ Despite Quantum's broad claim that *Harrington* rejected the argument that "this case belongs in Canada" (Opp. 2), the issue of *forum non conveniens* was not raised in *Harrington*. Nor did it come up in *NWBO*, *Mullen*, or *Phunware*.

Second, Quantum does not, and cannot, refute that Canada—a sovereign nation with its own financial regulators, securities laws, and courts—is an adequate alternative forum when its own cited cases acknowledge as much. See DiRienzo, 294 F.3d at 29.

Third, contrary to Quantum's suggestion, the private and public convenience factors uniformly weigh in favor of Canada. All parties are Canadian and most or all of the relevant witnesses and evidence (i.e., employees and records) are in Canada as well. The possibility that unidentified non-party witnesses might be located in New York does not justify the burden of transplanting a Canadian lawsuit to New York. See Varnelo v. Eastwind Transp., Ltd., 2003 WL 230741, at *23 (S.D.N.Y. Feb. 3, 2003) ("Court may not base its decision on speculation that New York-based witnesses may possess relevant information.").

The public interest factors also overwhelmingly favor dismissal because Canada has an outsized interest in overseeing a dispute occurring *solely* between Canadian companies about the trading of a Canadian stock. The AC's references to trading on Nasdaq do not move the needle because the AC does not plead with particularity that either Defendant placed a single trade on Nasdaq (or was even registered to do so). Canada's interest in deciding this controversy clearly outweighs any interest the United States has in this dispute. *See LaSala v. UBS, AG*, 510 F. Supp. 2d 213, 229, 232 (S.D.N.Y. 2007).

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⁴ The Opposition declares that Quantum "believes that the bulk of Defendants' spoofing activity occurred on American exchanges," but Quantum cites no factual support for that "belie[f]," other than generalized allegations that "trading volume is far higher" in the United States than it is in Canada. (Opp. 16.) Neither Defendant could trade on a U.S. exchange (Br. 6), and allegations about general trading volume in the United States have no specific bearing on *Defendants* 'trading.

II. Quantum fails to state a claim under the Exchange Act.

A. Quantum fails to plead manipulative conduct by CIBC or RBC.

In the Opposition, Quantum doubles down on its reliance on generic descriptions and labels, claiming that it has sufficiently pled "the nature, purpose, and effect of Defendants' spoofing scheme." (Opp. 18.) But the AC describes nothing more than a generic "Spoofing Cycle" (see ¶¶ 54-57), attributes it to Defendants, and concludes that Defendants placed trades to "deceive and mislead" with no support. This falls far short of Quantum's pleading burden under the PSLRA. Quantum also entirely fails to address the most plausible theory for its multi-year decline: its flawed business model and substantive annual losses. (Br. 6.)

Quantum argues that it pled "detailed examples" of spoofing trades along with "aggregate information" and "data points." (Opp. 19-20.) But the AC relies on market-wide data for *all* participants that have no actual bearing on any specific Defendant. (*See, e.g.*, ¶¶ 62, 70-75, 98, 100, 145.) Any data Quantum *does* attribute to "CIBC," "RBC" or "John Doe" fails to support a claim of manipulative conduct because it is impossible to tell whether those trades were actually placed by those entities or their customers, who trade based on independent strategies. (¶¶ 23, 51.)⁵ Such group pleading fails to plead with particularity "*which* defendants" performed what

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⁵ Quantum claims that other courts have accepted aggregated order data. (Opp. 22.) But *Harrington* held only that aggregated data did "not undercut" the Complaint's other "numerous allegations." 585 F. Supp. 3d at 416. *NWBO* similarly explained that plaintiff need not allege that certain baiting orders were placed and cancelled by clients, let alone the same client, given that its theory focused on defendants' control over high-speed trading algorithms. *Nw. Biotherapeutics, Inc. v. Canaccord Genuity LLC*, 2023 WL 9102400, at *18 (S.D.N.Y. Dec. 29, 2023) ("*NWBO I*"), report and recommendation adopted, 2024 WL 620648 (S.D.N.Y. Feb. 14, 2024). Here, in contrast, the AC does not even specify whether it was Defendants "or their customers" that "designed and implemented" the algorithms (¶ 85), and in any event the claim that Defendants used trading algorithms amounts to nothing more than routine market activity—not manipulative conduct (Br. 30).

purportedly manipulative acts. ATSI Commc'ns, Inc. v. Shaar Fund, Ltd., 493 F.3d 87, 102 (2d Cir. 2007) (emphasis added).

Quantum also argues that, even if the alleged spoofs were placed by customers, Defendants nonetheless were "responsible for the trades" because they "failed to monitor customer trading." (Opp. 22.) But Quantum cannot equate a "manipulative act" with a failure to monitor when the AC does not even attempt to plead that any Defendant's surveillance systems were inadequate or that any Defendant otherwise ignored red flags. (Br. 31 n.12.) In any event, Quantum's "monitoring" theory is wholly at odds with its other allegations, which acknowledge that the DMA platforms allowed for a "sponsored access arrangement" wherein "the customer routes the orders directly to the market, wholly bypassing the sponsoring broker-dealer's systems." (¶ 22 n.2 (emphasis added).)

The cases Quantum cites—Harrington, Phunware, and NWBO—only further expose the infirmity of Quantum's pleading. (Opp. 19, 22.) While Quantum alleges only seven illustrative examples of purported spoofing as to CIBC, and four as to RBC, the plaintiff in Harrington provided "a chart of an additional thirty spoofing episodes, specifying the date and time of each spoofing episode, the involved [d]efendants, the price decline in Concordia shares attributed to each episode, and the number of shares Harrington sold in reliance"—something Quantum conveniently ignores. Harrington, 2023 WL 6316252, at *6 (emphasis added). The plaintiff in Phunware provided a 55-page exhibit detailing purported instances of spoofing, listing for each the date, time, volume, executing purchase price, best offer, minimum and maximum price of purported baiting orders, the claimed price decline, and other data points by defendant. Ex. 23.6

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⁶ Citations to Exs. 1-22 refer to exhibits to the Broughel Declaration filed on June 16, 2025, and citations to Exs. 23-28 refer to exhibits to the Reply Broughel Declaration filed herewith.

And in *NWBO*, the plaintiff appended "a 208-page exhibit" broken down by defendant, detailing as many as "2,849 instances of purported spoofing," showing for each purported spoofing episode "the volume (by shares) and prices of alleged Baiting Orders, the volume (by shares) and price of an illustrative Executing Purchase, and the alleged price impact of the spoofing"—much more than the handful of examples alleged by Quantum. *NWBO I*, 2023 WL 9102400, at *3.

B. Quantum still fails to plead a strong inference of scienter.

The Opposition confirms Quantum's failure to "plead with particularity facts giving rise to a *strong* inference" that each defendant "intended to deceive investors," *ATSI*, 493 F.3d at 102 (emphasis added), under either a theory of (1) motive and opportunity, or (2) conscious misbehavior or recklessness.

1. Quantum fails to plead motive or opportunity.

Despite Quantum's claim that Defendants or their customers purchased shares at "artificially depressed prices" (¶¶ 3, 53), Quantum fails to allege that any Defendant benefitted "concrete[ly]" and "personal[ly]" from those purchases to "plead motive and opportunity." *Police & Fire Ret. Sys. City of Detroit v. Argo Grp. Int'l Holdings, Ltd.*, 2024 WL 5089970, at *11 (S.D.N.Y. Dec. 12, 2024). Quantum nowhere explains how anyone could have profited from the alleged spoofing here, which purportedly placed "continuous downward pressure on Quantum's share price." (¶¶ 102, 143, 172, 183, 193.)

Because a spoofer's profits "depend ... on a reversion of prices to the market level," *In re Merrill, Bofa, & Morgan Stanley Spoofing Litig.*, 2021 WL 827190, at *13 (S.D.N.Y. Mar. 4, 2021), to plead a net profit, Quantum must allege that Defendants bought Quantum's stock at depressed prices and then sold it after the price rebounded. (Br. 26.) But Quantum concedes that the AC does not plead reversion of prices to the market level; at best, Quantum asserts only that the AC "does not allege that the price did not rebound *at all* after Defendants' Spoofing Episodes."

(Opp. 27.)⁷ Accordingly, Quantum is left to argue that Defendants only profited "to the extent that Defendants were short Quantum stock"—a trading position that Quantum nowhere alleges in connection with any spoofing episodes pled in the AC—or that Defendants purportedly stood to earn pennies per share based on limited instances of trivial price reversions. (*Id.*)

Quantum argues that those *de minimis* amounts could have provided sufficient motive in the "aggregate." (Opp. 27-28.) That is wrong. Defendants showed that, *even in the aggregate*, the alleged benefit over the nearly-five-year period was too small to give rise to any inference of motive (\$146 in the U.S. (for all Defendants combined); \$614 for RBC in Canada; \$12,000 for CIBC in Canada). (Br. 27.) Quantum says it "does not concede" these calculations, but also does not refute them. (Opp. 28.) Nor could it when those calculations are based on Quantum's own numbers. (Br. 27 n.9.) Quantum speculates that profits would be higher if Defendants engaged in "more extensive spoofing," or if Defendants also spoofed different securities. (Opp. 28.) But Quantum never explains how spoofing a *different security* (not alleged in the AC) would provide a motive to spoof *Quantum's stock*. And even if Defendants engaged in *ten times* more spoofing in the United States than currently alleged, that still would amount to only a *\$1,460 benefit* for all Defendants *combined*. That is not enough to plead motive.

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⁷ For this reason, Quantum's reliance on *NWBO I*—where the alleged motive was to sell "at a higher price" "once the market rebounded"—is misplaced. 2023 WL 9102400, at *24; (Opp. 26-27). Unlike here, where Quantum's share price collapsed by 98% over the course of the Relevant Period, Ex. 6, the stock at issue in *NWBO I* experienced a nearly-three-fold *increase* over the relevant period, Ex. 26.

⁸ Again, *NWBO I* is distinguishable. In that case, one basis for rejecting the defendants' *de minimis* profits argument was that their calculation "understate[d]" profits by only using "one of the Executing Purchases" per episode, and by using the "best offer immediately prior to the Executing Purchase" rather than "the best offer at the start of the Spoofing Episode." 2023 WL 9102400, at *25. Not so here. (Br. 26-27.)

2. Quantum fails to plead conscious misbehavior or recklessness.

Quantum's attempts to plead conscious misbehavior and recklessness fare no better.

First, Quantum points to decisions in recent spoofing cases addressing different facts to argue that its reliance on group pleading and aggregated statistics are somehow enough to plead scienter. (Opp. 25-26.) To the extent any of those cases hold that a "strong inference" of scienter is adequately pled based on statistics aggregated across defendants and their customers, they are incompatible with Tellabs, Inc. v. Makor Issues & Rights, Ltd., which makes clear that the fraudulent inference "must be cogent and at least as compelling as any opposing inference of nonfraudulent intent," 551 U.S. 308, 314, 326 n.6 (2007), and with ATSI, which requires pleading those facts as to each individual defendant, 493 F.3d at 102. Merely speculating that defendants must have placed fraudulent orders based on group pleading and an unsupported imputation methodology is not enough. Cohen v. Stevanovich, 722 F. Supp. 2d 416, 428 (S.D.N.Y. 2010) ("generalized allegations of scienter against groups of defendants" are insufficient). Otherwise, a plaintiff could always escape the requirements of the PSLRA with a mere recitation of acts that could constitute an alleged scheme. ATSI, 493 F.3d at 102 ("PSLRA's heightened standards for pleading scienter" are "particularly important in manipulation claims" because scienter may be the "only factor that distinguishes legitimate trading from improper manipulation").

Second, Quantum argues that, even if the AC fails to connect specific orders to the individuals who placed them, the AC still pleads scienter because Defendants "were obligated to ensure that their platforms were not used for manipulative trading." (Opp. 26.) That is wrong. The AC alleges no facts whatsoever to establish that any individual overseeing Defendants' trading desks had any knowledge of, let alone approved, spoofing by anyone, or that any Defendant's monitoring systems were in any way defective. (Br. 29-31.) Quantum asserts that the alleged

spoofs could have been placed by customers through DMA platforms, but the AC does not plead with particularity that Defendants ignored any red flags in such trading. (*Id.*)

In response to these fatal deficiencies, Quantum argues only that, under *Harrington*, it was not required to plead those facts with particularity because such information would be "solely within the defendant's knowledge." (Opp. 26.) To the extent that was the rule applied in *Harrington*, it is wrong because it cannot be squared with *ATSI*'s requirement that the complaint plead with particularity both "the roles of the defendants" and "that the defendant[s] intended to deceive investors." 493 F.3d at 102. "General allegations not tied to the defendants . . . are insufficient." *Id.*; *see also id.* at 105 (allegation that "principal market maker . . . knew or should have known of the manipulation" was insufficient).

Quantum's reliance on *NWBO I* is similarly misplaced. (Opp. 25.) Unlike here, the *NWBO* plaintiff relied on order statistics that were broken down "by each Individual Defendant." Ex. 24 ¶ 279-83. In contrast, most of Quantum's figures are aggregated across all Defendants (¶¶ 79-80, 82-85), which "obscure[s] any given Defendant's contribution" and amounts to "group pleading in another form," *In re Mex. Gov't Bonds Antitrust Litig.*, 412 F. Supp. 3d 380, 389-90 (S.D.N.Y. 2019).

C. Quantum fails to plead loss causation.

The Opposition fails to overcome the fundamental defects in Quantum's loss causation theory, which prevent Quantum from pleading either "long-term impact" or "temporal proximity" under *Gamma Traders*.

1. Quantum fails to plead long-term impact.

Quantum fails to plead *long-term impact* because it does not allege any "factual basis that would justify an inference that the market price was still" artificially depressed when it sold its shares. *Gamma Traders*, 41 F.4th at 80. Courts in this District have repeatedly rejected

similar attempts to plead long-term impact on the same grounds. *See Phunware, Inc. v. UBS Sec. LLC*, 2024 WL 1465244, at *6-7 (S.D.N.Y. Apr. 4, 2024) ("*Phunware I*") (plaintiff failed to plead that spoofing impacted pricing for "two hours," let alone a "persistent and long-lasting" impact); *Nw. Biotherapeutics, Inc. v. Canaccord Genuity LLC*, 2025 WL 934319, at *14 (S.D.N.Y. Mar. 26, 2025) ("*NWBO II*") (plaintiff failed to plead "plausible factual allegations" that long-term price impact (beyond the same trading day) "actually occurred").

Largely ignoring these authorities, Quantum insists that this Court should sustain its long-term impact theory because the "precise amount of time that the impacts of Defendants' spoofing episodes lasted is an empirical question that will be resolved after discovery." (Opp. 32 (quoting ¶ 205).) But as the Second Circuit has explained, "before proceeding to discovery," it is "plaintiff's burden" to plead "factual allegations to support the inference that the effects of the spooflinger[ed]." Gamma Traders, 41 F.4th at 80-81 (emphasis added). Quantum's bald assertion that the alleged spoofs had a "persistent long-term negative impact" (¶¶ 201, 203-04) is "precisely the sort of 'merely conclusory statement' that [the Court] need not credit." Gamma Traders, 41 F.4th at 80.

Quantum's only basis for alleging long-term impact are (i) two charts that purport to show the average price decrease following alleged spoofs, and (ii) its assertion that Quantum's stock experienced "sharp price declines" on certain dates. Neither supports an inference of loss causation.

First, Quantum argues that its charts—purportedly showing that Quantum's stock price generally decreased, on average, in the 300-minute period and 60-day period following each spoof—somehow demonstrate long-term impact. (¶¶203-04.) But charts showing "average" price decreases over time are meaningless here because, as Quantum concedes, its stock lost 98% of its

value during the Relevant Period, and thus was decreasing, on average, throughout that time period. Ex. 6. Quantum provides no reasonable basis to infer that the average price decline following alleged spoofs was greater than the average decline during periods without spoofs (let alone that there was a statistically significant difference). The Court in NWBO rejected similar allegations on the same ground. NWBO II, 2025 WL 934319, at *16. Here, because both the 300-minute chart and 60-day chart "depict[] nothing more than a price decline," id., they do not support Quantum's long-term impact theory.

Quantum *do not* indicate that the relevant stock's price 'was already falling before the average Spoofing Episode.'" (Opp. 33-34.) But that is exactly what Quantum's 300-minute chart shows: in the 30-minute period before each alleged spoof, the cumulative return *decreased* on average (from approximately 1.75% to 0%), and then continued to decrease thereafter. (¶ 203.)⁹ Just like in *NWBO II*, because Quantum's chart shows its stock price *already* was falling before the average alleged spoof, it cannot support an inference that any price decline was *caused* by spoofing.¹⁰

Quantum also overstates the extent to which the *NWBO II* court held that a 400-minute chart in that case supported an inference that the alleged spoofing's impact lasted "at least a trading day." (Opp. 33.) When considered in isolation, the court merely stated that it "does not conclude, at this stage, that this chart should be 'entitled to no weight." *NWBO II*, 2025 WL

⁹ The Court need not accept the Opposition's assertion that "the price of Quantum stock was not typically falling before the Spoofing Episode" (Opp. 6) because that is nowhere alleged in the AC. *Kleinman v. Elan Corp.*, 706 F.3d 145, 153 (2d Cir. 2013).

¹⁰ Quantum's reliance on *Mullen* is misplaced for the same reason. (Opp. 33.) The *Mullen* plaintiff expressly pleaded there were "no material or statistically significant price declines in the minutes leading up to the Spoofing Episodes," which "strengthen[ed] the interpretation that the decline" shown in the charts "was caused by those episodes" and not "spurious" "pre-trends." Ex. 25 at ¶ 184.

934319, at *11. Only when "[t]aken together" with a separate "sentiment analysis" did the court conclude that the plaintiff sufficiently pleaded "spoofing lasted through the trading day." *Id.* at *12. The sentiment analysis demonstrated that the defendants usually spoofed "when investor enthusiasm over NWBO was rising," and thus the price would have kept rising "absent Defendants' spoofing." *Id.* In other words, it was the combination of the chart (showing a price decline after the spoofs) with the sentiment analysis (indicating prices would have otherwise increased) that supported the court's conclusion.

Here, Quantum did not even bother to conduct a sentiment analysis, and it alleges no other facts showing the price decline in the charts was caused by spoofing, rather than a general downward trend consistent with Quantum's stock price plummeting by 98% during the Relevant Period. Ex. 6. In *NWBO*, in contrast, the stock price nearly *tripled* in value over the period at issue. Ex. 26.

Second, Quantum attacks a strawman in arguing that it "need not disprove alternative theories" for its price decline. (Opp. 35.) Defendants argued no such thing. Rather, under Gamma Traders, it is Quantum's burden to plead facts supporting an inference that the price was impacted at the times Quantum traded. 41 F.4th at 80-81. Quantum has not done that here. Alleging "sharp price decreases" in Quantum's stock is not sufficient because Quantum does not plead any facts supporting an inference those decreases were caused by spoofs. On the contrary, Quantum's own pleadings and judicially-noticeable documents show that these price drops either predated (and thus could not have been caused by) the alleged spoofs, and/or coincided with Quantum announcing large sales and issuances of its own stock, which Quantum acknowledged could cause "progressive [price] declines" due to "dilution." (Br. 39-40.)

2. Quantum fails to plead temporal proximity.

Quantum also fails to plead loss causation under a *temporal proximity* theory because it fails to plead that "its trades occurred so close in time to Defendants' spoofing as to permit [the court] to infer as a matter of common sense" that prices were artificially depressed at the time of sale. *Gamma Traders*, 41 F.4th at 80.

First, Quantum does not dispute that the AC fails to allege that Quantum sold stock on the same day (or even the same week) as any of the "illustrative example" spoofs allegedly attributable to RBC. That is fatal. *Id.* ("Even pleading same-day, post-spoof trades does not justify an inference of injury without any factual allegations to support the inference that the effects of the spoof linger for the remainder of the trading day."). Even if, as Quantum argues, it would be "unwieldy" to "require Plaintiff to proffer detailed descriptions of each alleged episode" (Opp. 31), that does not explain the AC's failure to plead a *single* sale within hours (or even on the same day) of *any* RBC "example" spoof. Quantum undeniably has access to its own trading records, and if Quantum had sold stock on the same day as an RBC illustrative example, it surely would have alleged it. At a minimum, Quantum's claims against RBC must be dismissed.

Second, Quantum alleges that it sold stock "ten minutes" and "seventeen minutes" after two of the alleged CIBC "illustrative examples" (on February 10, 2021 and March 19, 2021, respectively) (Opp. 31), but it does not allege facts sufficient to draw the "common sense" conclusion that those spoofs impacted the price of those later-in-time sales. As other courts have explained, "the period of artificiality [for an alleged spoof] may be brief[,] . . . last[ing] only a matter of seconds." Merrill, 2021 WL 827190, at *13. Indeed, here, Quantum concedes that the market for its own stock moved quickly, alleging that "75% of all trades are conducted algorithmically" (¶ 85) and that the market reacted to each alleged spoof "within seconds or milliseconds" (¶¶ 55-56,89). It defies common sense that the market would react within seconds

or milliseconds to the *placement* of every alleged baiting order (as Quantum claims), but would take ten minutes or longer to react to the *cancellation* of those baiting orders. *Compare Phunware II*, 2024 WL 4891891, at *2 (sales "within seconds" of spoofing were "sufficient to plead loss causation... using a common-sense inference"), *with Phunware I*, 2024 WL 1465244, at *7 ("sales approximately two hours later" were insufficient). ¹¹

In any event, any inference that CIBC's purported spoofing depressed prices for ten minutes or more is undermined by Quantum's own allegations that the price of its stock actually went *up* shortly after certain alleged spoofs. *See*, *e.g.*, ¶209 (alleging price increased 31 seconds after alleged spoof on July 22, 2020 (from \$3.79 at 11:56:41 to \$3.90 at 11:57:12)); *id.* (alleging price increased 10 seconds after alleged spoof on July 24, 2020 (from \$3.75 at 10:44:55 to \$3.76 at 10:45:05)). Indeed, Quantum's allegations regarding the two CIBC illustrative examples fail for this very reason. With respect to the February 10 episode, the price increased from \$3.78 USD (prevailing best offer before the alleged spoof) to \$3.87 USD (at closing). (¶113); Ex. 7 at 7. And with respect to the March 19 episode, the price increased from \$2.21 USD (prevailing best offer before the alleged spoof) to \$2.26 USD (at closing). (¶113); Ex. 7 at 8. Without pleading additional facts regarding the duration of the alleged price impact, it cannot be inferred from "common sense" that the price was artificial at the time of Quantum's sales.

of a spoof were sufficient under the temporal proximity standard. (Opp. 30.) That holding was limited to "sales within seconds," which were enough to grant the plaintiff's motion to amend. Phunware II, 2024 WL 4891891, at *2-3 (emphasis added). It therefore did not reach any other sales. And while some courts have found the causal inference warranted for sales occurring up to one hour after an alleged spoof (Opp. 29-30), those cases are inconsistent with Gamma Traders, which held that the court could not "reasonably infer that spoofing's effects last throughout the day," notwithstanding that "the effects of spoofing pose questions of fact." 41 F.4th at 80-81.

Last, Quantum argues that it is not "required to allege that it sold stock in temporal proximity to any of the illustrative examples." (Opp. 31.) But Quantum's reliance on NWBO for this point is misplaced. The NWBO complaint provided hundreds of pages of tables detailing all of the defendants' alleged spoofs and the plaintiff's alleged sales, including a 200-page exhibit listing, for every single alleged spoof: the defendant, the date, the time, the prior best offer price, the price and volume of the baiting orders and executing purchases, and the price decline. See Ex. 27. The NWBO plaintiff also provided more than 100 pages of detailed exhibits regarding plaintiff's alleged sales, including identifying sales occurring in the last hour of certain key trading days (the basis for the temporal proximity allegations). See Ex. 28. Given the amount of detailed information that the NWBO plaintiff provided in its exhibits, it is not surprising that the court did not place any particular importance on the 16 example episodes described in the complaint. See NWBO I, 2023 WL 9102400, at *20.

In contrast, here, Quantum provides tables that purport to list its sales and stock issuances made "within five minutes" and "within one hour" of unidentified "Spoofing Episodes," but does not plead *any facts whatsoever* that would allow the Court to infer that any spoofing actually occurred on those dates. (Br. 33-34.)

III. Quantum's Exchange Act claims are time-barred.

Quantum concedes that its Exchange Act claims are timely only "so long as it discovered 'the facts constituting the violation' on or after October 21,2022." (Opp. 37.) Quantum does not, and cannot, point to a single fact necessary to plead a spoofing claim that was not already known to it before this date. That is because Quantum's entire claim stems from order data that Quantum admitted in SEC filings it has been analyzing "on a daily basis" since March 2022. Ex. 1 at 1. Quantum asserts that this disclosure was referring to "data on the number of Quantum shares held and circulating," which "is not the same data that Quantum's expert subsequently analyzed"

to identify spoofing. (Opp. 41.) But the same disclosure states that Quantum "along with its consultants and contractors have been analyzing data . . . including that of broker-dealers, clearing firms, and shareholder position management." Ex. 1 at 1 (emphasis added). Either Quantum had been reviewing data as far back as March 2022, or it failed—after "first suspect[ing] share price manipulation in 2021"—to take reasonable steps to investigate. Ex. 11 at 10. Either way, Quantum's claims are time-barred. City of Pontiac Gen. Emps. 'Ret. Sys. v. MBIA, Inc., 637 F.3d 169, 175 (2d Cir. 2011) (fact "deemed discovered" for limitations purposes when "a reasonably diligent plaintiff would have sufficient information about that fact to adequately plead it in a complaint").

Nowhere in its Opposition does Quantum point to *any* facts uncovered post-March 2022 that were necessary to plead its case. At best, Quantum suggests that it needed this period to uncover the "identities of the perpetrators" as well as the extent of the spoofing, noting it could not have done so without "the assistance of an expert." (Opp. 37.) Neither of these facts are necessary to plead its claim. Quantum concedes that it still "does not know the full extent" of Defendants' alleged spoofing and is asserting claims against John Does. (Opp. 6, 37.) Moreover, Quantum had already identified CIBC in connection with its investigation into "potential price manipulation" in 2021 and sent correspondence to it directly at that time. Ex. 11 at 10; Ex. 16 (correspondence to CIBC dated November 24, 2021). 13

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¹² Notably, Quantum admitted it engaged "consultants and contractors" to "analyz[e] data" daily as early 2022. Ex. 1 at 1.

¹³ In a footnote, Quantum argues that its correspondence with CIBC "should not be considered by the Court on a motion to dismiss." (Opp. 38 n.13.) But by its own admission, these documents reflect Quantum's investigation into the alleged market manipulation at issue and that it "diligently pursued [these] claims." (Opp. 38-39.) Because this direct correspondence with CIBC consists of

Quantum's efforts to spin these facts fall flat. (Opp. 39-41.) Quantum does not dispute it had access to the same publicly available market data it relies on now as early as 2021, when it already suspected "share price manipulation." Ex. 11 at 10. That Quantum waited years to bring its case renders it time-barred. *Pontiac*, 637 F.3d at 175.

IV. Quantum fails to plead common law fraud.

Quantum's common law fraud claim should be dismissed for the same reasons its Exchange Act claims fail. *Cartwright v. D'Alleva*, 2018 WL 9343524, at *6 (S.D.N.Y. Aug. 27, 2018), *aff'd*, 782 F. App'x 77 (2d Cir. 2019). Additionally, a "New York common law fraud claim requires that a plaintiff" plead with particularity "a misrepresentation or a material omission of fact," but Quantum "provides no case law to suggest that under New York law, trading activity can constitute a misstatement for purposes of fraud." *Harrington I*, 585 F. Supp. 3d at 424.

Instead, Quantum cites to *Gamma Traders* and *ATSI* for the uncontroversial proposition that market manipulation is considered fraud under the *federal* securities laws. (Opp. 42.) Neither opinion says anything about common law fraud. The fraud cases Quantum cites are easily distinguishable as they involve identifiable misrepresentations or omissions. (Opp. 43.) For example, in *Minpeco, S.A. v. ContiCommodity Services, Inc.*, the court denied a motion to dismiss fraud claims alleging that the defendants conspired to monopolize and inflate the price of silver futures. 552 F. Supp. 332, 337 (S.D.N.Y. 1982). Unlike the alleged spoofing trades here, those futures contracts were actually executed, and despite having a duty to counterparties to speak up, the defendants remained silent. Similarly, *In re Blech Securities Litigation* involved a detailed and

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[&]quot;documents or information" that Quantum had "knowledge or possession of" and "relied on it in framing the complaint," this Court may consider it "even if not attached or incorporated by reference." *BankUnited, N.A. v. Merritt Envt'l Consulting* Corp., 360 F. Supp. 3d 172, 183 (S.D.N.Y. 2018).

orchestrated scheme among several parties, including the issuing company, to inflate the stock price through actually executed (albeit sham) transactions. 961 F. Supp. 569, 587 (S.D.N.Y. 1997).

V. This Court should deny leave to amend.

This Court should deny Quantum's request for leave to amend for a second time. (Opp. 38 n.12, 43.) Quantum already has amended and has not explained how it would cure its pleading deficiencies. *See Pioneer GP Ltd. v. Valdez*, 2023 WL 4364464, at *2 (S.D.N.Y. July 6, 2023).

CONCLUSION

For the foregoing reasons, the AC should be dismissed with prejudice.

Dated: September 1, 2025 New York, New York Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH LOCAL CIVIL RULE 7.1(C)

Pursuant to Local Civil Rule 7.1(c), Thereby certify that this Memorandum contains 7,000 words, which complies with the word-count limitation that the Court granted on March 14, 2025.

/s/ Kevin P. Broughel

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